

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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COUNTRY USSR(Ukrainian SSR)

DATE DISTR. 11 February 1952

SUBJECT Nitrogen Plant at Dneprodzerzhinsk

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THIS IS UNEVALUATED INFORMATION

1. The nitrogen plant southeast of Dneprodzerzhinsk (48°30'N/34°37'E), Ukrainian S.S.R. was between the double-track railroad line and the road to Dnepropetrovsk, northeast of a railroad station. A gas pipe line, 1.3 to 1.5 meters in diameter and elevated several meters above ground, connected the nitrogen plant to a coking plant in the northwest, near the Dnepr River.
2. From the northern coking plant gas was piped to the gas department of the nitrogen plant; from there it was piped to Assembly Shop I and then through pipes, 70 cm in diameter, to Department No 1.
3. The so-called Assembly Shop I, completed in early 1948, was equipped with three Wallbe g compressors, of which the first was started in November 1948, the second in late February 1949, and the third was scheduled to start operation in July 1949. Each compressor had a double casing and operated in the following six stages,

- | | |
|---------|------------------------------------|
| stage 1 | 60 atmosphere pressure |
| stage 2 | 110 atmosphere pressure |
| stage 3 | 280 atmosphere pressure |
| stage 4 | 500 atmosphere pressure |
| stage 5 | 800 atmosphere pressure |
| stage 6 | 1000 and more atmosphere pressure. |

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No Change in Class. ☒

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The total weight of a compressor was 56 tons, including a 30 ton crank shaft. The fly wheel had a diameter of 7 meters.

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4. In shop designated Department I, work was done with gas masks. The department had an ammonium odour and produced gas for some sort of icing purposes. All PW's were withdrawn from this department after an explosion in September 1947.
5. The plant produced Cellit (sic) packed in paper sacks, sulphur, sulphuric acid, hydro-chloric acid and vitriol of copper. The plant's 3,000 laborers, 50 percent of whom were women, worked three shifts.
6. The major part of the plant was reconstructed and in operation by the spring of 1948. Four workshops were under construction in the western part of the plant and several other construction sites were surveyed and excavated in other parts of the plant during the summer of 1949. Of the six cooling towers, four were reconstructed in July 1949. They were 38 meters high, 12 meters in diameter, constructed of acid-resisting Krupp steel (Type V II A) and were supported by concrete pillars, 2 meters high. The half boiler house was newly constructed. Four boilers operated in the old section. A smokostack, 35 meters high, was south of the building. Another workshop had three 6-stage compressors measuring approximately 6.2 meters. *

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